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Title: Mean field games with congestion

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Abstract: A class of mean field games models were introduced by J.M. Lasry and P.L. Lions to describe congestion and aversion effects in dynamics optimization of large populations. In this case the equilibria are solutions of forward-backward systems where Bellman and Fokker-Planck equations are strongly coupled and the Hamiltonian degenerates as the density of the agents becomes large. Moreover, in this model the mean-field games system loses the variational character which is typical of a mean-field control formulation and some of the methods previously used cannot apply. In a joint work with Y. Achdou we prove existence and uniqueness results for this kind of mean field games systems under general assumptions.